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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,956	04/21/2000	Thomas A. Runkler	50277-452	7423

7590 07/08/2003

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EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 07/08/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/553,956

Applicant(s)

RUNKLER ET AL.

Examiner

HUNG Q PHAM

Art Unit

2172

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 June 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
2. ☐ The proposed amendment(s) will not be entered because:  
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ they raise the issue of new matter (see Note below);  
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-8, 10, 12-25, 27, 29-34.Claim(s) ~~withdrawn from consideration~~: 9, 11, 26 and 28. are canceled

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.  
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.  
10. ☐ Other: \_\_\_\_\_


The limitations in claims 9, 11, 26, 28 are canceled and incorporated into independent claims 1, 10, 18, and 27 respectively. Please see the final rejections, paragraph No. 3 in the Office Action 03/25/2003.

Regarding to the argument of claims 17, 34 in page 14 of the Amendment paper number 12, a *partition coefficient* is defined by applicants in page 15, lines 3-5 of the Specification,

*a partition coefficient, which quantifies the goodness of the clustering, is computed for each dimension as a measure of cluster validity or how well separated the clusters are.*

As disclosed by Hall, the decision tree allows the classification of examples into two classes and each class is associated with a node of the tree by choosing an attribute whose values may split the examples up into more homogeneous groups as *cluster analyses along each of the features for a plurality of cluster number* (Decision trees from C4.5, page 1757). The attribute values of a continuous valued attribute are each examined as a possible attribute to split the example set at a node in a decision tree. The selection of a specific value is based upon the information gain ratio associated with choosing that attribute. The attribute, which has the highest information gain associated with it is chosen as the attribute for splitting the examples at a node (page 1758). Thus, the information gain ratio of each feature in the training set is to split the training data into more homogeneous groups, or in other words, is to *quantify the goodness of the clustering, or how well separated the clusters are*, and the technique of Hall as discussed indicates the step of *performing a plurality of cluster analyses along said each of the*

*features for a plurality of cluster numbers to calculate information gain values as respective partition coefficients; and determining the highest information gain as maximal cluster validity measure from among the partition coefficients or information gain values.*

  
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